

AMENDMENT TO THE CLAIMS

1. **(Currently Amended)** A method of operating an internal combustion engine, comprising: introducing a nitrogen-containing detergent composition comprising

(A) a reaction product of a hydrocarbyl-substituted acylating agent and an amine; wherein the detergent composition (A) is the reaction product of a polyisobutenylsuccinic acylating agent and a polyethylenepolyamine wherein the polyisobutenyl group has a number average molecular weight of 150 to 5000;

(B) a hydrocarbyl-substituted amine;

or combinations thereof and optionally further comprising:

(C) a Mannich reaction product of a hydrocarbyl-substituted hydroxy-containing aromatic compound, an aldehyde, and an amine; wherein the Mannich reaction product is prepared from phenol alkylated with a polyisobutylene having a number average molecular weight of 120 to 3000, formaldehyde, and a secondary monoamine;

(D) a high molecular weight polyetheramine prepared by reacting one unit of a hydroxy-containing hydrocarbyl compound with two or more units of butylene oxide to form a polyether intermediate, and aminating the polyether intermediate by reacting the polyether intermediate with an amine or with acrylonitrile and hydrogenating the reaction product of the polyether intermediate and acrylonitrile; or combinations thereof;

wherein the nitrogen-containing detergent composition is present in a fuel composition; and

wherein said fuel composition is supplied into a combustion chamber of the engine during the operation of the engine wherein the detergent composition improves the performance of a lubricating oil of the engine;

wherein the engine is lubricated by a lubricating composition comprising an oil of lubricating viscosity and one or more lubricating oil additives, where the lubricating oil has at least one of the properties selected from the group consisting of a phosphorus content below 0.1% by weight, a sulfur content below 0.5% by weight, and a sulfated ash content below 1.5% by weight; and

wherein the engine is a spark-ignited or a compression-ignited engine having an exhaust treatment device.

2. **(Cancelled)**

3. **(Previously Presented)** The method of claim 1 wherein the detergent composition improves the performance of the fuel composition and wherein the fuel composition comprises diesel fuel.

4. **(Cancelled)**

5. **(Original)** The method of claim 1 wherein the detergent composition (B) is derived from a polyisobutylene having a number average molecular weight of 150 to 5000 and a polyamine.

6. **(Cancelled)**

7. **(Original)** The method of claim 1 wherein the polyetheramine is represented by the formula $R(\text{OCH}_2\text{CHR}^1)_x\text{A}$ wherein R is a C_6 to C_{30} alkyl group or a C_6 to C_{30} alkyl-substituted phenyl group; R^1 is ethyl; x is a number from 5 to 50; and A is $-\text{OCH}_2\text{CH}_2\text{CH}_2\text{NH}_2$ or $-\text{NR}^2\text{R}^3$ wherein R^2 and R^3 are independently hydrogen, a hydrocarbyl group, or $-(\text{R}^4\text{NR}^5)_y\text{R}^6$ wherein R^4 is an alkylene group having 2 to 10 carbon atoms, R^5 and R^6 are independently hydrogen or a hydrocarbyl group, and y is a number from 1 to 7.

8. **(Original)** The method of claim 1 wherein the detergent composition further comprises a fuel additive selected from the group comprising a nitrogen-containing detergent, an amine-containing polyether, a lubricity agent, a fluidizer, a metal-containing detergent, a rust inhibitor, a corrosion inhibitor, an antioxidant, a low temperature flow improver, a demulsifier, an antifoaming agent, a valve seat recession additive, a combustion improver, a metal deactivator, or a mixture thereof.

9. **(Original)** The method of claim 8 wherein the detergent composition is a combination of a hydroxyalkyl-substituted fatty amine represented by the formula $\text{RN}[(\text{A}^1\text{O})_x\text{H}][(\text{A}^2\text{O})_y\text{H}]$ wherein R is a hydrocarbyl group containing 4 to 30 carbon

atoms, A¹ and A² are independently alkylene groups having 2 to 18 carbon atoms, and x and y are independently zero or an integer where the sum of x and y is at least one; and a partial ester of a fatty carboxylic acid and a polyol wherein the ester has at least one free hydroxyl group.

10. **(Currently Amended)** The method of claim 1 wherein the engine is a compression-ignited engine ~~or spark-ignited direct injection engine~~ having an exhaust gas recirculation system.

11. **(Cancelled)**

12. **(Currently Amended)** The method of claim 1 wherein ~~the engine is a spark-ignited or a compression-ignited engine having an exhaust treatment device, and a fuel of the fuel composition has a sulfur content below 80 ppm by weight.~~

13. **(Original)** The method of claim 1 wherein the engine is installed in a motor vehicle and has a recommended drain interval for the lubricating oil of the engine of greater than 6,000 miles.

14. **(Original)** The method of claim 1 wherein the engine is a stationary engine having a recommended drain interval for the lubricating oil of the engine of greater than 150 operational hours.

15. **(New)** The composition of claim 1 wherein the engine is lubricated by a lubricating composition comprising an oil of lubricating viscosity and one or more lubricating oil additives.